Bangalore Bird Scarer Maintenance Manual

for Bangalore Bird Scarers with Non-Digital Control Boxes

1. Troubleshooting

A. General situations that will stop your gun working

A.1 Debris in the barrel

Check for rats' or mice nests in the barrel. These will block the airway in the barrel forcing the gas out of the air holes in the injector, rather than into the gun. No gas = no bang.

A.2 Flat battery

The battery may have insufficient power to ignite the gas. Replace or recharge the battery.

A.3 Wrong spark plug type

If you replace the spark plug, make sure you fit a **long reach** rather than a short reach spark plug.

A.4 Spark plug side electrode still in place

If you replace the spark plug, make sure you remove the side electrode.

A.5 Low gas pressure

The gas bottle may be depleted - replace with a full bottle.

A.6 Gas jet core position

If the gas jet core has been removed, make sure it has been re-positioned correctly. The gas jet core in the wrong position can give a **WHUMP** rather than a **BANG**.

A.7 Advanced control panel settings

If the advanced control panel settings have been altered, the amount of gas entering the barrel may be too great. Too much gas can give a **WHUMP** rather than a **BANG**. Refer to your instruction manual.

A.8 Rusty fuse

Check the fuse isn't corroded. Clean or replace as necessary.

A.9 Dirt in the gas jet

Check the gas jet isn't blocked. Clean or replace as necessary.

A.10 Corroded battery connectors

Check the battery connectors are corroded. Clean or replace as necessary.

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B. The Bangalore doesn't fire and the control box doesn't click

This is likely to be a problem with the either electrical connections or the control box.

B.1 Check the battery connections

Ensure that the RED lead from the control box connects to the POSITIVE (+) terminal on the battery and the BLACK lead connects to the NEGATIVE (-) terminal. Ensure that good contacts are made with the terminals. If these leads are connected the wrong way round, or the contact is not good, the control box will appear dead and won't function.

B.2 Check the fuse hasn't blown and isn't corroded

The fuse is mounted in the RED lead connecting to the POSITIVE (+) battery terminal. Check that the fuse hasn't blown.

If the fuse has NOT blown: check that there is no corrosion on the fuse terminals that will prevent the current flow. Remove, inspect and replace the fuse if required. Clean any corrosion from the fuse's terminals and the mushroom ends of the wires in the fuse holder. Give the spring in the fuse holder a slight stretch and re-assemble.

If the control box still doesn't light up: Check that you have followed all the instructions in sections B1 and B2 above. If the control box still won't light up, replace it with the latest timed RetroFit Digital Display Control Box (Part No. B17). See Section 4 on Page 7 for full details.

C. The control box clicks but the Bangalore doesn't fire

This is likely to be a problem with the gas supply or the ignition system. **CAUTION: Carry out the following tests in an out-door area where there are no naked flames or other sources of gas ignition. Do not smoke anywhere near a Bangalore Bird Scarer.**

C.1 Check the gas supply

Check your gas bottle isn't depleted (replace with a full one), check that it's turned on and check the gas regulator is firmly screwed onto the gas bottle.

C.2 Check the gas system

For Surefire Superchargers: carefully note the position of the steel gas jet core in the firing tube - you must replace it in this exact position. Remove the steel gas jet core from the firing tube and locate the gas jet, mounted at the end.

For Bangalore Bird Scarers: remove the barrel from the Bangalore Bird Scarer to expose the gas jet.

Very carefully, unscrew the gas jet. Look through the gas jet to see if there are any obstructions. Clean out the gas jet by very gently blowing through it. Never poke objects into the gas jet to clear it out - you will damage it.

With the gas jet still removed, set the gun to work a few times by pressing the Test Fire button. This flushes the pipes free of debris. You should be able to hear a hiss of gas from the pipe each time the gun tries to fire.

If you hear the gas hiss: Replace the gas jet, ensuring that it's screwed tight enough to prevent gas escaping via the threads. For Surefire Superchargers, replace the gas-jet into the gas jet core. Replace the gas jet core into the firing tube, making sure it's replaced in the same position you noted earlier. Hint: you can fine tune the bang of the Surefire Supercharger by raising or lowering the position of the gas jet core within the firing tube.

If you DO NOT hear the gas hiss: Check that you have followed all the instructions in sections C1 and C2. If you still don't hear the gas hiss, replace it with the latest timed RetroFit Digital Display Control Box (Part No. B17). See Section 4 on Page 7 for full details.

C.3 Check the ignition system

Check your spark plug first. Check that it is a long reach spark plug and check that the side electrode has been removed (this forces the spark to jump from the central electrode to the rim of the spark plug).

Test your ignition system as follows.

CAUTION: Disconnect the Bangalore Bird Scarer from the gas supply before proceeding with this test. Potential shock hazard. Do not touch any exposed parts, wires or the spark plug when performing this test.

1. Remove the coil, condenser, spark plug and spark plug lead from the gun and connect the spark plug to the coil using the spark plug lead, as shown in Diagram C3 below:

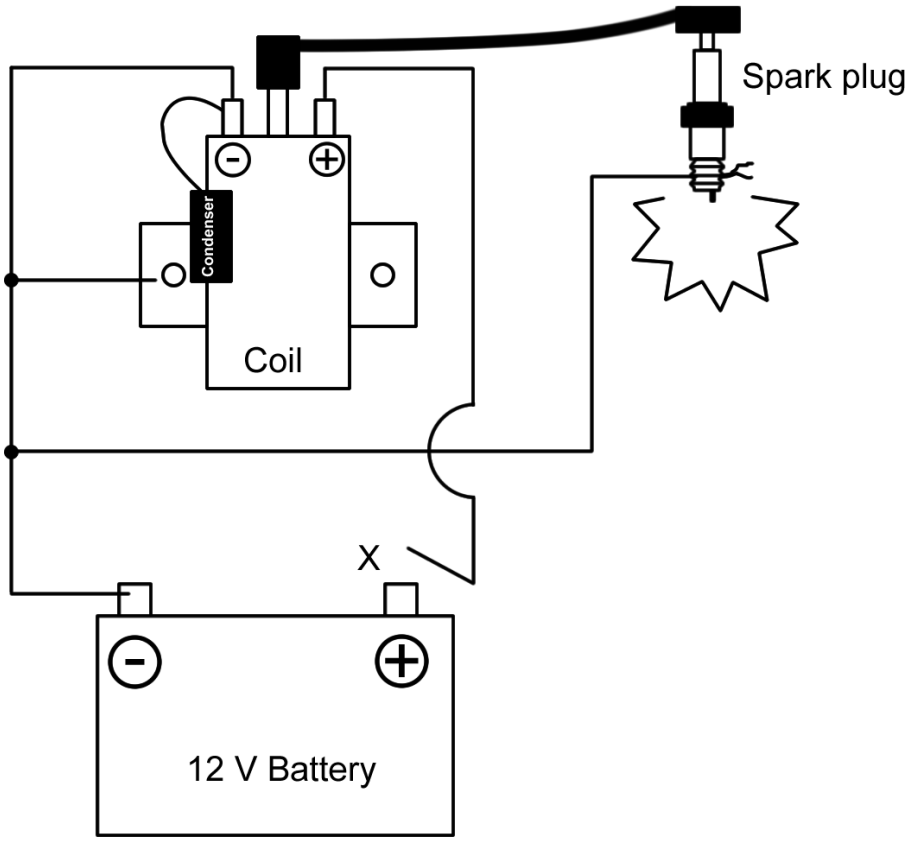

Diagram C3. Wiring configuration required to test the ignition system.

2. Using pliers to make tight connections, connect a piece of standard single-core wire from the NEGATIVE (-) terminal of the battery to:
   - the metal clamp of the coil holder
   - the negative connector of the coil
   - the thread of the spark plug
3. Do the same from the POSITIVE (+) terminal of the battery to the positive side of the coil BUT DO NOT CONNECT IT PERMANENTLY TO THE COIL.
4. Position the spark plug so that you can safely see the tip and so that it is not in direct contact with any other objects.

5. Briefly touch the live positive wire from the battery onto the positive coil connector. On breaking the connection the spark plug should spark.

If the spark plug DOES spark: the ignition system is working. Replace the ignition system back into the Bangalore Bird Scarer.

If the spark plug DOES NOT spark: Check that you have followed all the instructions in section C3 above and check the connections as shown in Diagram C3. If the spark plug still doesn't spark, replace the Ignition Kit (Part No. B90). See Section 4 on Page 7 for full details.

C.4 Check for loose connections and corrosion

A perfectly good ignition system will fail when fitted to the gun if there is not a good clean earth run from the spark plug thread to the NEGATIVE (-) terminal of the battery. Also, the condenser attached to the coil must have a good earth from its own metal body onto the metal clamp of the coil holder. The wire push on tag contacts must also be sound and the screw top of the spark plug must be tight.

As your gun ages, corrosion will start to interfere with the good earth in the system. If the gun gives ignition trouble, remove all the electrical components, strip down to their bare minimum and give everything a good clean with a wire brush, emery or wire wool, even if it looks clean. Include the thread where the spark plug seats into the gas injector stem. **CAUTION: Disconnect the Bangalore Bird Scarer from the battery before cleaning the ignition system components. NOTE: There is no need to open or clean the inside of the control box.**

C.5 Check the control box is pulsing correctly

If you have tried the solutions in sections C1, C2, C3 and C4, you will have established that your gas system is operating correctly and that the ignition system is clean and operating correctly. Check that the control box is pulsing correctly as follows. Refer to Diagram C5 for the wiring diagram for this test.

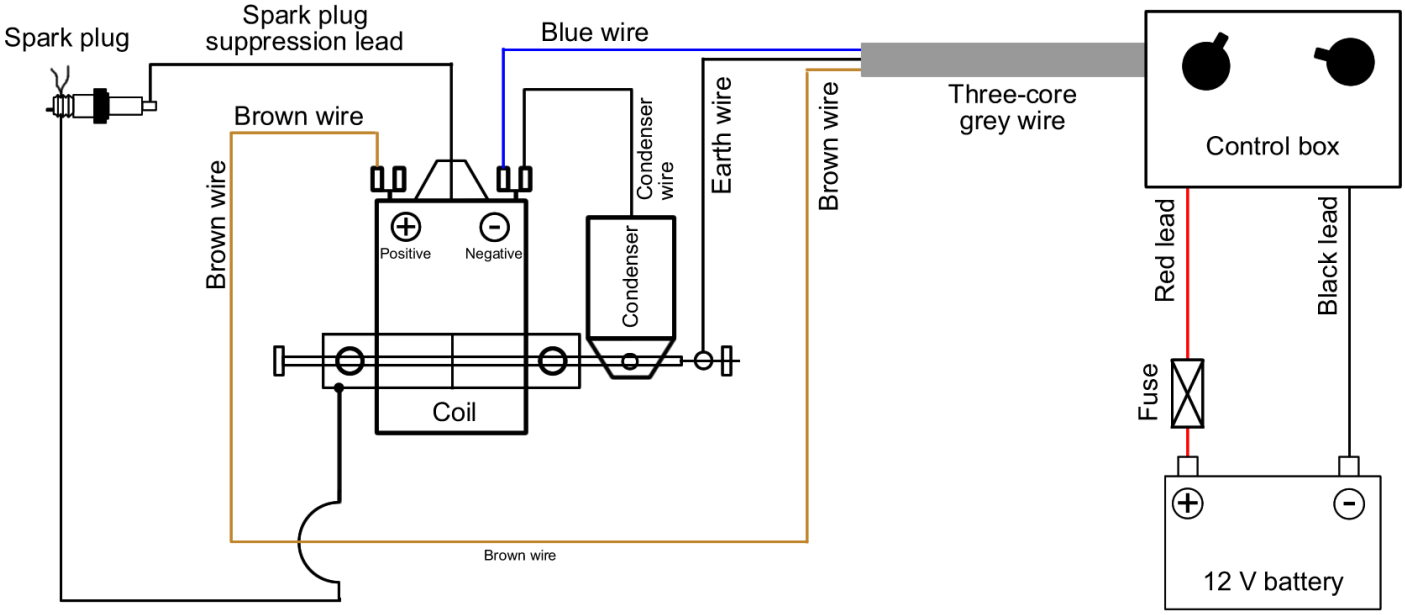

Diagram C5. Wiring configuration required to test the control box pulsing.

CAUTION: Disconnect the Bangalore Bird Scarer from the gas supply before proceeding with this test. Potential shock hazard. Do not touch any exposed parts, wires or the spark plug when performing this test.

1. Refer to Diagram C3 set up, but this time connect up the wires from the control box to operate the ignition coil.

2. Using pliers to make tight connections, connect a piece of standard single-core wire from the metal clamp of the coil holder to the thread of the spark plug (see Diagram C5).
3. Press the Test Fire button. You should be able to see the spark plug sparking each time the control box clicks.

If the spark plug DOES spark: the control box and the ignition system are both working.

If the spark plug DOES NOT spark: Check that you have followed all the instructions in section C5 above and check the connections as shown in Diagram C5. If the spark plug still doesn't spark, replace it with the latest timed RetroFit Digital Display Control Box (Part No. B17). See Section 4 on Page 7 for full details.

D. My Bangalore Bird Scarer is firing at night

Replace the photocell (Part No. B81). See Section 4 on Page 7 for full details.

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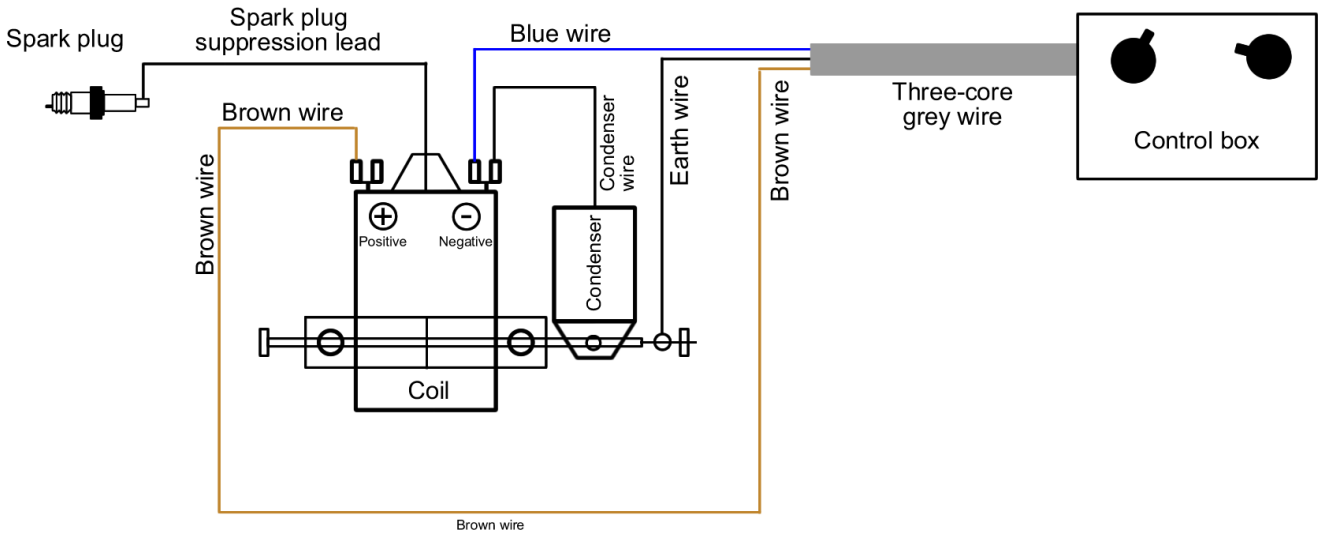
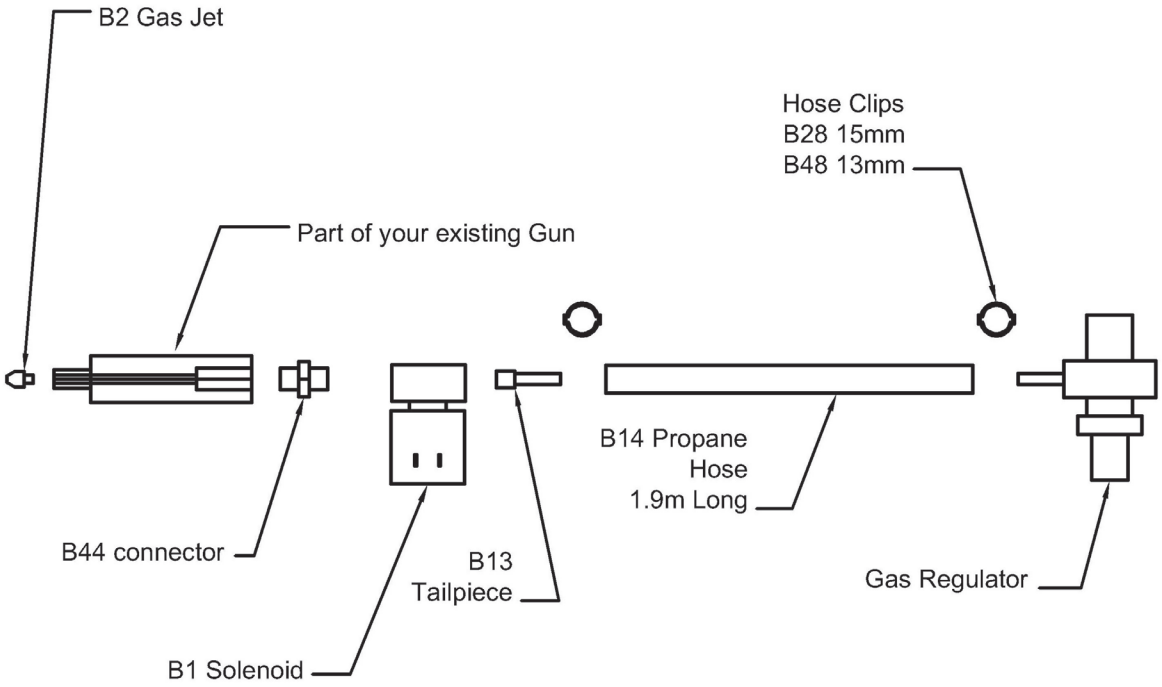
2. Wiring Diagram



Wiring diagram for the Bangalore Bird Scarers without digital displays on their control boxes

3. Gas System Diagram



Gas system diagram for Bangalore Bird Scarers without digital displays on their control boxes

4. Spare Parts Price List

For Bangalore Bird Scarers without digital displays on their control boxes.

Part No	Description	Price	Delivery
Complete Kits			
B17	**RetroFit Digital Display Control Box Kit** New control box with digital display and timer system as fitted as standard on the latest Bangalore Bird Scarers. Complete with full gas kit. Please note that Ignition System (B90) is not included with this kit.	£214.00	£10.00
B90	**Complete Ignition System** Complete with Coil Condenser Assembly (B108), Spark Plug with side electrode removed (B111) and Spark Plug Suppression (Speed) Lead (B31) .	£41.50	£7.00
Individual Components			
B81	**Photocell**	£17.00	£5.00
B108	**Coil-Condenser Assembly**	£30.80	£5.00
B31	**Spark Plug Suppression (Speed) Lead** Connects the spark plug to the coil.	£7.90	£5.00
B111	**Spark Plug for Bangalore Bird Scarers** With side electrode already removed.	£3.30	£5.00
B109	**Individual Gas Regulator** Fits onto gas bottle. Complete with clamp. You will also require the Gas Pipe Securing Clips (B25) to install this part.	£31.50	£5.00
B11	**Coil and Spark Plug Rear Housing**	£9.00	£5.00
B1	**Gas Solenoid** You will also require the Gas Pipe Securing Clip Kit (B25) to install this part.	£42.00	£5.00
B25	**Gas Pipe Securing Clips** Contains 2 hose clips of different diameters to fit your gas pipe.	£0.50	Free

All prices exclude VAT at 17.5%.

Order online at
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